miles north of the receiver site. The transmitter site has three 1 KW transmitters, one 10 KW transmitter and three transmit antennas (1 dipole, 1 rotatable log periodic, and 1 sloping-V) and a test site for additional antennas.

TRANSPORTABLE SYSTEMS

The HF Test Facility has two transportable systems, the AN/TSC-122 and AN/TSC-60(V)7, used principally to emulate real world warfighter tactical HF assets. Depending on the test application, these truck mountable units can be moved within the JITC HF Control, Transmitter, or Receiver test compounds.

ADDITIONAL INFORMATION

To obtain more information about the JITC High Frequency Test Facility, its capabilities and functions, please contact the following JITC representative:

Mr James Skjervem
JITC (JTEA)
(520) 538-5483
DSN: 879-5483
e-mail: skjervej@fhu.disa.mil

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Joint Interoperability Test Command
ATTN: Visitor Support Center
Building 57305
Fort Huachuca, AZ 85613-7020

1-800-LET-JITC
http://jitc.fhu.disa.mil

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HIGH FREQUENCY TEST FACILITY

Joint Interoperability Test Command

HF TEST MISSION

The JITC is responsible for certifying all C^{4}I systems as interoperable for joint use. DoD Directive (DoDD) 4630.5 and DoD Instruction (DoDI) 4630.8 mandate compatibility, interoperability, and integration certification testing for all Command, Control, Communications and Intelligence (C^{3}I) systems developed for use by US Forces. This certification must be obtained prior to fielding a new system. DoDI 4630.8 directs DISA to "develop and conduct a C^{3}I systems interoperability testing and certification program." Further amplification is contained in the Chairman, Joint Chiefs of Staff Instruction 6212.01A to also include certification of Automated Information Systems (AISs) having requirements to provide information to the Joint Warfighter. The Director, DISA, delegates this responsibility to the JITC.

The requirements for High Frequency (HF) Radio, HF Automatic Link Establishment (ALE), HF Anti-Jam Communications, and HF Data Modem interoperability and standards compliance have been established in both the military and civil sectors of the Federal Government. These requirements, in addition to those associated with Electronic Counter-Counter Measures (ECCM), brought about the development of three applicable Military Standards; MIL-STD-188-141B (Interoperability and Performance Standards for Medium Frequency (MF) and HF Radio Equipment), MIL-STD-188-110A (Interoperability and Performance Standards for Data Modems), and MIL-STD-188-148A (C) (Interoperability Standard for Antijam Communications in the High Frequency Band). Based on the DoD Directive and Instruction, CJCS Instruction, and the MIL-STDs referenced above, the JITC developed three JITC Instructions, JITCI 380-195-01A, -01B, and -01C (C) to test compliance to the MIL-STDs. Standards compliance and interoperability testing typically requires a total of 51 subtests for the HF radio, including Automatic Link Establishment (ALE), 19 subtests for the modem, and 12 subtests for Anti-Jam; thus, there is no one typical test setup. Interoperability testing typically involves the interoperation of the Unit Under Test (UUT) with a series of COMSEC, terminal devices, and other HF radios, either over-the-air (OTA), in a laboratory environment (back-to-back) or through an HF channel simulator.

HF TEST FACILITY OVERVIEW

The HF Test Facility is a classic HF radio facility with spatially separated transmitter and receiver sites controlled via Line-of-Sight (LOS) microwave and fiber optic cable from a third location, or control site. The facility is designed around a variety of fixed and transportable assets located at the control, transmitter and receiver sites. The transmitter and receiver sites are designed for unmanned operation.

The HF Test Facility can perform many types of network operations. It can operate as an individual member of an HF net, operate as a net control station accessing multiple members of an HF net, or function as a member of several different nets. The Facility can also emulate a DISN entry facility with access to DSN and AUTODIN trunks. The HF Test Facility has the capability to operate in ALE nets with the AN/TSC-122 and URC-119 radio systems.

CONTROL SITE

The control site is located in Building 57439, within the JITC compound on Fort Huachuca, AZ. This site houses the primary radio control consoles, computers, remote test equipment, control systems, patch and test facility, HF Narrowband Channel Simulator, screen room, and other facilities for bench, laboratory, and OTA equipment and system testing. Fiber optic cable provides connectivity to the receiver site and an AN/GRC-103 LOS microwave radio system provides linkage to the transmitter site.

RECEIVER SITE

The receiver site is on 400 acres adjacent to Libby Army Airfield at Fort Huachuca. The HF receiving system is comprised of the Rockwell-RS 2000, Rockwell HF-80, and MacKay single-sideband receivers. Six HF receive antennas (3 rotatable log periodic, 2 sloping-V and 1 dipole) terminate on a 4 x 8 antenna switching matrix allowing operation of selected receivers on any of the installed antennas. The site also has two transmit systems, one Rockwell HF-80 1-kW and one Harris AN/URC-119 100 watt transceiver.

TRANSMITTER SITE

The transmitter site is situated on 60 acres at the U.S. Army Electronic Proving Ground, Site Sybil, located (7) seven miles east of Benson, AZ and approximately 30